Appendix E:
Test Cycles

Test Cycles

Test cycles, as defined in Section III - Framework, map test objectives across process domains to form manageable test components. Figure F-I illustrates the test objectives to be tested for each process domain.

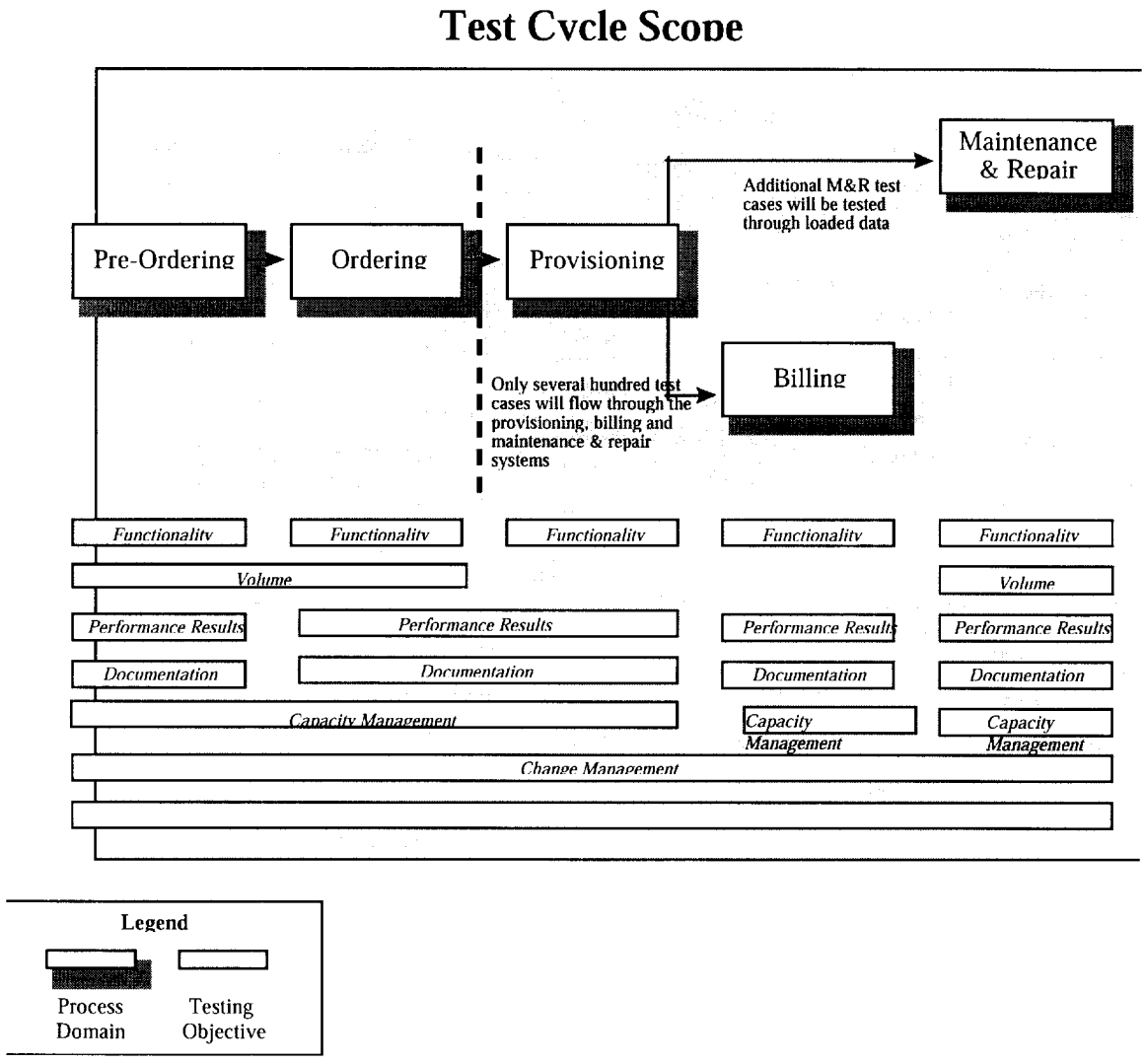

Figure ~~E~~F-I: Test Cycle Scope

The following figures define each test cycle to be used in the Test.

Pre-Ordering

Cycle #	Cycle Name	Cycle Description
PRE-1	TAG Pre-Ordering Functional Test	This cycle will test the pre-ordering functionality available via the TAG interface.
PRE-2	Pre-Ordering Performance Results Comparison	This cycle will compare the results from the pre-ordering functional and volume tests with BellSouth's OSS ~~wholesale~~ performance ~~metrics~~measurement system.
PRE-3	TAG Pre-Ordering Documentation Evaluation	This cycle is an analysis of the BellSouth-provided documentation used by CLECs to interface and interact with the TAG interface for pre-ordering activities.~~will assess the overall quality of BellSouth pre-ordering documentation.~~
PRE-4	TAG Pre-Ordering Normal Volume Test	This cycle will test the capability of the TAG interfaces to support normal production volumes for pre-order inquiries.
PRE-5	TAG Pre-Ordering Peak Volume Test	This cycle will test the capability of the TAG interfaces to support peak production volumes for pre-order inquiries.
PRE-6	TAG Pre-Ordering Processing Systems ~~Scalability~~ Capacity Management Evaluation	This cycle is a detailed review of the safeguards and procedures in place to plan for and manage projected growth in the use of pre-ordering applications. ~~will evaluate the scalability of BellSouth's pre-ordering systems complex to handle projected growth.~~

Figure ~~E~~F-II: Pre-Ordering Test Cycle Scope

Ordering and Provisioning

Cycle #	Cycle Name	Cycle Description
O&P-1	EDI Functional Test	This cycle will test the ordering and provisioning functionality available via the EDI interface for UNE products. ~~independent of product transactions.~~
O&P-2	TAG Functional Test	This cycle will test the ordering and provisioning functionality available via the TAG~~EDI~~ interface for UNE products. ~~independent of product transactions.~~
O&P-3	EDI/TAG Normal Volume Performance Test	This cycle will test the capability of the EDI/TAG interfaces to support normal production volumes for pre-order inquiries and resale and UNE orders.
O&P-4	EDI/TAG Peak Volume Performance Test	This cycle will test the capability of the EDI/TAG interfaces to support peak production volumes for pre-order inquiries and resale and UNE orders.
O&P-5	Provisioning Verification Test	This cycle will evaluate BellSouth's ~~performance in the provisioning of UNEs and UNE combinations.~~ability to accurately and expeditiously complete the provisioning of service requests placed in O&P-1 and O&P-2.
O&P-6	Ordering Processing Systems Capacity Management ~~Scalability~~ Evaluation	This cycle is a detailed review of the safeguards and procedures in place to plan for and manage projected growth in the use of ordering applications.~~This cycle will evaluate the scalability of BellSouth's ordering systems complex to handle projected growth in resale and UNE orders.~~
O&P-7	O&P Performance Results Comparison	This cycle will compare the results from the functional, normal volume and peak volume tests for both the EDI/TAG interfaces with BellSouth's OSS performance ~~metrics~~measurement system. The comparison will include both resale and UNE products.

O&P-8	EDI Documentation Evaluation	This cycle is an analysis of the BellSouth-provided documentation used by CLECs to interface with the EDI systems for ordering and provisioning activities. ~~will assess the overall quality of BellSouth EDI documentation for the ordering and provisioning processes.~~
O&P-9	TAG Documentation Evaluation	This cycle is an analysis of the BellSouth-provided documentation used by CLECs to interface with the TAG system for ordering and provisioning activities. ~~will assess the overall quality of BellSouth TAG documentation for the ordering and provisioning processes.~~
O&P-10	EDI / TAG Production Volume Performance Test	This cycle will evaluate simultaneously the behavior and performance of both the interfaces under current capacities of the production system.

Figure ~~EF~~-III: Ordering and Provisioning Test Cycle Scope

Billing

Cycle #	*Cycle Name*	*Cycle Description*
BLG-1	CRIS/CABS Invoicing Functional Test	This cycle will ~~test~~ evaluate the functional elements of the carrier invoicing process for UNEs as delivered to CLECs by the CRIS/CABS interface. ~~invoicing functionality available via the CRIS and CABS interfaces for UNE products independent of product transactions.~~
BLG-2	ODUF/ADUF Usage Functional Test	This cycle will evaluate ~~test~~ the functional elements of daily message/usage processing for UNE ports as delivered to CLECs by the ADUF/ODUF interfaces. ~~usage functionality available via the ODUF and ADUF files for UNE products independent of product transactions.~~
~~BLG-3~~	~~Billing Usage Returns Evaluation~~	~~This cycle will evaluate the process by which usage returns are processed and test the BellSouth processing of test usage returns.~~
BLG-34	CRIS/CABS Invoicing ~~Scalability~~ Capacity Management Evaluation	This cycle is a detailed review of the safeguards and procedures in place to plan for and manage projected growth in the use of CRIS/CABS applications for bill generation and invoicing. ~~will evaluate the capability of the CRIS/CABS transaction support processes for resale and UNE products to handle near future growth projections without performance degradation.~~a
BLG-45	ODUF/ADUF Usage ~~Scalability~~ Capacity Management Evaluation	This cycle is a detailed review of the safeguards and procedures in place to plan for and manage projected growth in the use of ODF/ADUF interfaces. ~~will evaluate the capability of the ODUF and ADUF files for resale and UNE products to handle near future growth projections without performance degradation.~~
BLG-56	Billing Performance Results Comparison	This cycle is a comparative analysis of billing performance results collected by KPMG through test management tools and by BellSouth's OSS performance measurement system. ~~will compare the results from the functional, normal volume and peak volume tests for both the billing process.~~
BLG-67	CRIS/CABS Invoicing Documentation Evaluation	This cycle is an analysis of the BellSouth-provided documentation used by CLECs to interact with BellSouth's invoicing systems when conducting billing activities. ~~will assess the overall quality of BellSouth's CRIS and CABS documentation.~~

Cycle #	Cycle Name	Cycle Description
BLG-~~7~~8	ODUF/ADUF Documentation Evaluation	This cycle is an analysis of the BellSouth documentation used by CLECs to interact with BellSouth's usage reporting systems when conducting billing activities. ~~will assess the overall quality of BellSouth's ODUF and ADUF documentation.~~

Figure ~~F~~E-IV: Billing Test Cycle Scope

Maintenance & Repair

Cycle #	Cycle Name	Cycle Description
M&R-1	TAFI Functional Test	This cycle will evaluate the functional elements of the trouble reporting and screening process for telephone number assigned UNEs as delivered to CLECs via the TAFI interface in BellSouth's production environment. ~~test the maintenance and repair functionality available via the TAFI interface for UNE products independent of product transactions.~~
M&R-2	ECTA Functional Test	This cycle will evaluate the functional elements of the trouble reporting and screening process for both telephone number assigned and circuit identified UNEs as delivered to CLECs via the ECTA interface. ~~test the maintenance and repair functionality available via the ECTA interface for UNE products independent of product transactions.~~
M&R-3	ECTA Normal Volume Performance Test	This cycle will evaluate the behavior and performance of the ECTA interface under "normal" YE01 projected transaction load conditions. ~~test the capability of the ECTA interface to support normal production volumes for resale and UNE trouble reports.~~
M&R-4	ECTA Peak Volume Performance Test	This cycle will evaluate the behavior and performance of the ECTA interface under peak YE01 projected transaction load conditions. ~~test the capability of the ECTA interface to support peak production volumes for resale and UNE trouble reports.~~
M&R-5	TAFI ~~Scalability~~ Capacity Management Evaluation	This cycle is a detailed review of the safeguards and procedures in place to plan for and manage projected growth in the use of TAFI interfaces. ~~will evaluate the scalability of the TAFI transaction support processes to handle near-future growth projections.~~
M&R-6	ECTA ~~Scalability~~ Capacity Management Evaluation	This cycle is a detailed review of the safeguards and procedures in place to plan for and manage projected growth in the use of ECTA interfaces. ~~will evaluate the scalability of the ECTA transaction support processes to handle near-future growth projections.~~
M&R-7	M&R Performance Results Comparison	This cycle is a comparative analysis of M&R performance results collected by KPMG test management tools and by BellSouth's OSS performance measurement system. ~~will compare the results from the functional, normal volume and peak volume tests for both the TAFI/ECTA interface.~~
M&R-8	TAFI Documentation Evaluation	This cycle is an analysis of the BellSouth-provided documentation used by CLECs to interface and interact with the TAFI interface for maintenance and repair activities. ~~will assess the overall quality of BellSouth TAFI documentation for the~~

Cycle #	Cycle Name	Cycle Description
		~~maintenance and repair process.~~
M&R-9	ECTA Documentation Evaluation	This cycle is an analysis of the BellSouth-provided documentation used by CLECs to interface and interact with the ECTA interface for maintenance and repair activities. ~~will assess the overall quality of BellSouth ECTA documentation for the maintenance and repair process.~~
M&R-10	M&R Process Evaluation	This cycle is an evaluation comprised of two major elements. The first (Sub-Test 1) evaluates the functional equivalence of BellSouth's M&R processes for wholesale and retail trouble reports. The second element (Sub-Test 2) involves the execution and observation of selected M&R test scenarios to evaluate BellSouth's performance in making repairs under the conditions of various wholesale maintenance scenarios.

Figure EF-V: Maintenance & Repair Test Cycle Scope

~~Forecasting &~~ Change Management

Cycle #	Cycle Name	Cycle Description
~~FCM-1~~	~~Forecasting Review~~	~~This cycle will determine the existence and functionality of procedures for developing, publicizing, conducting, and monitoring forecasting efforts.~~
FCM-12	Change Management Practices Review	This cycle evaluates the overall policies and practices for managing change in the procedures and systems necessary for establishing and maintaining effective operations between BellSouth and CLECs. ~~will evaluate the overall policies and practices for managing change specific to the procedures and systems necessary to establish and maintain an effective BellSouth/CLEC relationship.~~

Figure EF-VI: ~~Forecasting &~~ Change Management Test Cycle Scope

Appendix F:
Reference Documents

The purpose of this appendix is to document all references used in the composition of the Master Test Plan.

Title	Author	Authoring Group	Date
BellSouth Regulatory Filings			
Brief in Support of Second Application by BellSouth for Provision of In-Region, InterLATA Services in South Carolina		BellSouth	30-Sep-97
Brief in Support of Application by BellSouth for Provision of In-Region, InterLATA Services in Louisiana		BellSouth	06-Nov-97
Brief in Support of Second Application by BellSouth for Provision of In-Region, InterLATA Services in Louisiana		BellSouth	09-Jul-98
Reply Brief in Support of Second Application of BellSouth For Provision of In-Region, InterLATA Service in Louisiana		BellSouth	28-Aug-98
Statement of Generally Available Terms & Conditions for Interconnection, Unbundling and Resale Provided by BellSouth Telecommunications, Inc. In the state of Georgia		BellSouth	15-Oct-98
BellSouth Technical Specifications			
BellSouth Work Aid for Ordering Complex Services, Issue 1		BellSouth	Mar-98
CLEC Information Package for Facility Based Providers, Issue 1		BellSouth	Jun-97
CLEC TAFI End-User Training and User Guide, Issue 6		BellSouth	6-Sept-98
CLEC USOC Manual		BellSouth	09-Sept-98
Electronic Interface Change Control Process, Issue 1		BellSouth	Apr-98
LEO Guide, Volume I, Issue 7E		BellSouth	18-Jan-99
LEO Guide, Volume II, Issue 6		BellSouth	05-Feb-99
LEO Guide, Volume III, Issue 3		BellSouth	Aug-98
LEO Guide, Volume IV, Issue 7D		BellSouth	18-Jan-99
Resale CLEC Starter Kit, Issue 2		BellSouth	31-Dec-97
Telecommunication Access Gateway Training - Release 2.1		BellSouth	11-Mar-99
TAG Reference Guide		BellCore	11-Apr-98
TAG API Programmers Guide		BellCore	11-Apr-98
Books & Articles			
CLEC 101: Lessons in Competition		Yankee Group	Oct-98
Communications Systems and Networks	Horak, Ray		1996
The Essential Guide to Telecommunications	Dodd, Annabel Z.		1998
Newton's Telecom Dictionary. 14th Edition	Newton, Harry		Oct-98
Telecom Services: CLECs 1999: Issues & Outlooks		Goldman Sacks	Jan-99

Title	Author	Authoring Group	Date
There's No Place Like Home: 1998 U.S. Residential Telecommunications Survey	Thorat, Dana	International Data Corporation	Aug-98
LA II Affidavits			
Affidavit of Robert V. Falcone		AT&T	04-Aug-98
Affidavit of Jan Funderburg		BellSouth	09-Jul-98
Affidavit Of W. Keith Milner		BellSouth	09-Jul-98
Affidavit of William N. Stacy Checklist Compliance (Operations Support Systems)		BellSouth	09-Jul-98
Affidavit of William N. Stacy Checklist Compliance (Performance Measures)		BellSouth	09-Jul-98
Affidavit of Alphonso J. Varner		BellSouth	09-Jul-98
Affidavit of Aniruddha Banerjee		BellSouth	09-Jul-98
Affidavit of R. F. (Rook) Barretto		BellSouth	09-Jul-98
Affidavit of Dennis M. Betz		BellSouth	09-Jul-98
Affidavit of Guy L. Cochran		BellSouth	09-Jul-98
Affidavit of Douglas R. Coutee		BellSouth	09-Jul-98
Affidavit of Douglas R. Coutee		BellSouth	09-Jul-98
Affidavit of Richard J. Gilbert		BellSouth	09-Jul-98
Affidavit of Gary M. Wright		BellSouth	09-Jul-98
Affidavit of David A. Kettler		BellSouth	09-Jul-98
Affidavit of Linda M. Kinsey		BellSouth	09-Jul-98
Affidavit of William Marczak		BellSouth	09-Jul-98
Affidavit of William Marczak		BellSouth	09-Jul-98
Affidavit of Douglas W. Mcdougal		BellSouth	09-Jul-98
Affidavit of Laura Narducci		BellSouth	09-Jul-98
Affidavit of John W. Putnam		BellSouth	09-Jul-98
Affidavit of D. John Roberts		BellSouth	09-Jul-98
Affidavit of Valerie K. Sapp		BellSouth	09-Jul-98
Affidavit of David Scollard		BellSouth	09-Jul-98
Affidavit of John Shivanandan		BellSouth	09-Jul-98
Affidavit of William L. Smith		BellSouth	09-Jul-98
Affidavit of Pamela A. Tipton		BellSouth	09-Jul-98
Affidavit of Lynn A. Wentworth		BellSouth	09-Jul-98
Affidavit of Glenn A. Woroch		BellSouth	09-Jul-98
Affidavit of Robert L. Yingling		BellSouth	09-Jul-98
Declaration on Behalf of BellSouth by Richard L. Schmalensee		BellSouth	09-Jul-98
Declaration of Professor Jerry A. Hausman		BellSouth	09-Jul-98
United States Department of Justice Documents			
DOJ Evaluation of BellSouth Louisiana Application		Department of Justice	10-Dec-97
DOJ Evaluation of BellSouth Louisiana Application		Department of Justice	19-Aug-98
DOJ Evaluation of BellSouth South Carolina Application		Department of Justice	04-Nov-97
DOJ Evaluation of Ameritech Michigan Application		Department of Justice	25-Jun-97
Local Competition Operational Readiness, Prepared for United States Department of		Department of Justice	22-Aug-97

Title	Author	Authoring Group	Date
Justice			
Federal Communication Commission Documents			
CC Docket No. 96-98 and 95-185 In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 and Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers		FCC	08-Aug-98
CC Docket No. 98-121 - In the Matter of Application of BellSouth Corporation Telecommunications, Inc. and BellSouth Long Distance, Inc., for Provision of In-Region, InterLATA Services in Louisiana		FCC	13-Oct-98
CC Docket No. 98-56 RM-9101 - In the Matter of Performance Measurements and Reporting Requirements for Operations Support Systems, Interconnection, and Operator Services and Directory Assistance		FCC	17-Apr-98
CC Docket No. 97-137 In the Matter of Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, to Provide In-Region, InterLATA Services In Michigan.		FCC	19-Aug-97
CC Docket No. 97-208 In the Matter of Application of BellSouth Corporation, *et al.* Pursuant to Section 271 of the Communications Act of 1934, as amended, to Provide In-Region, InterLATA Services In South Carolina.		FCC	24-Dec-97
Industry Analysis Division Report of Local Competition		Common Carrier Bureau, FCC	Dec-98
Public Service Commission Documents			
Docket No. 6863-U In re: BellSouth Telecommunications, Inc.'s Entry into InterLATA Services Pursuant to Section 271 of the Telecommunications Act of 1996		Georgia Public Service Commission	15-Oct-98
Docket No. 960786-TL - In re: Consideration of BellSouth Telecommunications, Inc.'s entry into interLATA services pursuant to Section 271 of the Federal Telecommunications Act of 1996		Florida Public Service Commission	19-Nov-97
Opinion and Order Concerning Methods for Network Element Recombination		New York Public Service Commission	23-Nov-98

Title	Author	Authoring Group	Date
Additional References			
Bell Atlantic-New York OSS Evaluation Project Master Test Plan, Draft Final Report - Version 1.0		State of New York Department of Public Services, submitted by KPMG Peat Marwick LLP	19-Apr-99
Bell Atlantic-New York OSS Evaluation Project Master Test Plan, Draft - Version 1.0		State of New York Department of Public Services, submitted by KPMG Peat Marwick LLP	26-Jun-98
Bell Atlantic-Pennsylvania OSS Evaluation Project Master Test Plan, Draft		State of Pennsylvania Department of Public Services, submitted by KPMG Peat Marwick LLP	29-Mar-99
www.interconnection.bellsouth.com		BellSouth	

Appendix G:
Glossary

Term	Definition
271 APPLICATION	An application to offer long distance services from an RBOC to a state or federal regulatory agency. In order to grant this application, the agency must find the applicant is in compliance with the 14 point competitive checklist described in the 1996 Telecommunications Act.
~~800 DATABASE~~	~~800 Database Service is provided under two scenarios. One where the CLEC is equipped with Service Switching Point (SSP) functionality requires access to the BellSouth Service Control Point (SCP). Another, where the customer is no SSP equipped, requires routing of the call to a BellSouth SSP. In either case, identification and routing of 800, 888 dialed calls is based on the full ten digits dialed (800,888 NXX XXXX)~~
ADUF (ACCESS DAILY USAGE FILE)	Provides competitors with records for billing interstate access charges to interexchange carriers for calls originating from, and terminating to, unbundled ports
ANALOG	Transmission method employing a continuous (rather than pulsed or digital), electrical signal that varies in amplitude or frequency in response to changes of sound, light or position and is imposed on a transducer in the sending device. ~~Opposite of digital.~~
ANI (AUTOMATIC NUMBER IDENTIFICATION)	(1) Telephone number of the line initiating a call; number is identified by the switch and passed over the network to equipment at the terminating location. (2) Number-identifying equipment ~~which~~ that records the number for accounting purposes at local telecom offices. (3) Display of the final four or all seven numbers of a seven-digit phone number.
~~ASR~~ ~~(ACCESS SERVICE REQUEST)~~	~~Access Service Request. Form used to order interoffice facilities such as dedicated trunk ports.~~
BLACK BOX TESTING	Only tests what goes in and what comes out of the code. No consideration of what is happening to the data while it is inside the box (program or system).
BOC (BELL OPERATING COMPANY)	Any of the 22 local Bell telephone companies owned by AT&T before divestiture. Independent BOCs provide primary access to interexchange carriers

Term	Definition
BRI (BASIC RATE INTERFACE)	Two bearer B-channels at 64 kbps and one data D-channel at 16 kbps in an integrated services digital network (ISDN) configuration.
BUSINESS REQUIREMENTS	~~Business~~ Translation of business needs of a new service, feature, or function into the constituent technical requirements
CALL FORWARDING	Feature of some intelligent network switches and PBXs; allows calls to be rerouted automatically from one line to another.
CENTREX	Local exchange ~~carriers'~~ carrier's (LEC) value-added service which permits incoming calls to be dialed direct to extensions without operator assistance. Outgoing and intercom calls may be dialed by extension users.
CLEC (COMPETITIVE LOCAL EXCHANGE CARRIER)	Competitive Local Exchange Carrier
~~CLEC HANDBOOK~~	~~User documentation for CLEC that describes, in 3 volumes, how to establish a CLEC, the technical specifications for interacting with BellSouth, and the business rules CLECs should follow in order to purchase unbundled network elements.~~
CLEC LIVE DATA	Production data delivered through interfaces that are already operational for real CLEC customers.
CO (CENTRAL OFFICE)	(1) ~~Location)~~ Location of telephone switching equipment at which customer's lines are terminated and interconnected. (2) ~~Switching)~~ Switching center that provides local access to the public network. Synonyms: end office, local dial office, wire center or switching center.
COMPARATOR	A ~~mechanized~~ tool that will compare actual test results against expected test results.
COMPLEX SERVICE REQUESTS	Complex service requests are for resale or ~~UNEs which~~UNEs that require extra handling outside the service provisioning pipeline, handled by a BellSouth Account Team.
CONDITION	Used to describe requirement or functionality to be tested; ~~-~~will be assigned appropriate ownership. ~~The TestDirector, test management tool, captures this information per test.~~
~~CRITICAL DEFECT~~	~~Defects which cause a Severity 1 Test Exception.~~

Term	Definition
CSR (CUSTOMER SERVICE RECORD)	~~Customer Service Record.~~ Details of a given customer's directory listing, TN, LPIC, USOCs, effective service dates, and related information ~~fixed monthly charges billed~~ electronically stored by the local telephone company.
CUSTOMIZED ROUTING	ILECs, including BOCs, currently use this functionality to direct certain classes of traffic to certain trunks. For example, an ILEC would have its switches send -0 minus and 0 plus calls to its own operator services platform and 411, 555-1212 and area code plus 555-1212 calls to its directory assistance platform. Routing instructions are encoded in the line class code.
DAILY USAGE FEED (DUF)	A daily download of usage data from the switch which is delivered to BellSouth's message processing system and directly to the CLEC.
~~DEDICATED ACCESS~~	~~Connection between a customer's premises and an interexchange carrier (IXC). All transmissions on this dedicated line are automatically routed to the IXC. Provided by a local exchange carrier (LEC), alternate access provider or IXC.~~
~~DEDICATED TRANSPORT~~	~~ILEC transmission facilities dedicated to a particular customer or carrier that provide telecommunications between wire centers owned by ILECs or requesting telecommunications carriers, or between switches owned by ILECs or requesting telecommunications carriers.~~
DOCUMENT REVIEW	Compilation and review of books, manuals, and other publications related to the process and system under study.
EDI (ELECTRONIC DATA INTERCHANGE)	~~Electronic Data Interchange.~~ A process and series of standards for computer-to-computer ~~exchanging~~ exchange of business information ~~that is subject to industry standards.~~
ENTRANCE AND EXIT CRITERIA	The necessary conditions for starting ~~or~~ and completing individual tests described in the Test Plan.
ERROR/REJECTION NOTIFICATION	Notification generated by BellSouth's systems when a request from a CLEC cannot be filled without

Term	Definition
	additional manual clarification.
~~EQUIVALENCE CLASS~~	~~Complete group of conditions to test which result from one requirement or set of requirements~~
PERFORMANCE MEASURES	Discrete set of measures to be applied to specific test components
FCC (FEDERAL COMMUNICATIONS COMMISSION)	U.S. government agency established by the Communications Act of 1934 ~~which~~ that regulates all interstate communications.
FID (FIELD IDENTIFIER)	~~Field Identifier.~~ A code used when administering usage limits on residence and business end users. Also refers to fields of information used in the service order.
FOC (FIRM ORDER CONFIRMATION)	A response from the BellSouth Service Order Processor that acknowledges ~~a~~ successful receipt of an order from a CLEC. Includes the specified due date – i.e. commitment date
FLOW-THROUGH	An order placed by a CLEC's customer service representative that can be provisioned correctly without manual intervention by BellSouth's service representatives.
ILEC (INCUMBENT LOCAL EXCHANGE CARRIER)	~~Incumbent Local Exchange Carrier.~~ The local exchange carrier for a particular area as of 1996. BellSouth is the relevant ILEC.
INSPECTION	Physical reviews of process activities and products, including site visits, walk-throughs, read-throughs, and work center observations.
INP (INTERIM NUMBER PORTABILITY)	The use of existing and available call routing, forwarding, and addressing capabilities to enable an end user to retain the same telephone number regardless of which local service provider is chosen.
ISDN (INTEGRATED SERVICES DIGITAL NETWORK)	Switched network providing end-to-end digital connectivity for the simultaneous transmission of voice, data, video, imaging and fax over several multiplexed communications channels. Employs high-speed, out-of-band signaling protocols that conform to international standards. Signaling and communications are separate, therefore ~~reduces~~

Term	Definition
	reducing network blockage and ~~provides~~ providing faster connectivity for users.
IXC (INTEREXCHANGE CARRIER)	Provider of long-distance service.
LATA (LOCAL ACCESS AND TRANSPORT AREA)	~~Local Access and Transport Area.~~ A geographic area established by law within which a Bell Operating Company may provide telecommunications services.
LCSC (LOCAL CARRIER SERVICE CENTER)	~~Local Carrier Service Center. Customer service center which receives CLEC calls on the BellSouth side~~Serves as the Single Point of Contact for processing local service requests from CLECs. The LCSC processes service order requests and provides status on service requests. The center also delivers authorized customer record information and performs billing inquiries.
~~LENS~~ ~~(LOCAL EXCHANGE NAVIGATION SYSTEM)~~	~~Pre-Ordering system which is able to allow CLECs visibility into the Customer Service Record data prior to ordering service with a potential customer. It also supports ordering functionality. Such pre-ordering data includes:~~ ~~(1) telephone number; (2) listed name; (3) listed address; (4) directory listing information; (5) directory delivery information; (6) billing name; (7) billing address; (8) service address; (9) product and service information; and (10) PIC and LPIC. Does not include credit information at this time.~~
LEGAL AND REGULATORY REQUIREMENTS CRITERIA SOURCE	This includes requirements specified by statute and regulation, such as FCC orders, court orders, regulations, federal and state statutes, and other binding requirements resulting from judicial/governmental proceedings.
~~LIDB~~ ~~(LINE IDENTIFICATION DATABASE)~~	~~Line identification database. Allows validation of credit card, Billed-to-Third Party and Collect calls. Subscribing CLECs are required to interface with BellSouth's LIDB locations as described and listed in the applicable tariffs. No optional network features are associated with this service.~~
LOCAL LOOP	The telephone line that runs from the local telephones company to the end user's premises.
LOGGING	Monitoring activities and collecting information by logging process events and products as they happen. Logging can be mechanized or manual.

Term	Definition
LNP (~~LONG TERM~~LOCAL NUMBER PORTABILITY)	~~Long Term Number Portability~~Mandated by the Federal government as part of the Telecommunications Act of 1996, LNP offers an end-user the opportunity to change his/her local phone company while retaining the same telephone number.
LPIC (LOCAL PRIMARY INTEREXCHANGE CARRIER)	Predesignated Intra-LATA Carrier, or Local Primary Interexchange Carrier. Telephone company chosen by the end user as being the default carrier for calls outside the local calling area, but within the same LATA. These are also known as regional toll calls.
LSR (LOCAL SERVICE ~~RECORD~~REQUEST)	Standard set of forms and data required by the ILEC from the CLEC in order to set up, provision, and bill the CLEC for ~~re~~selling ILEC services to end users.
MASTER TEST PLAN	Identifies the overall framework and structure of the test.
MDF (MAIN DISTRIBUTION FRAME)	~~Main Distribution Frame.~~ The primary point at which outside plant facilities terminate within a Wire Center for interconnection to other telecommunications facilities within the Wire Center.
MLT (MECHANIZED LOOP TEST)	Provides loop testing on the customer's line number.
NID (NETWORK INTERFACE DEVICE)	~~Network Interface Device.~~ Used to connect the loop facility to the customer premise inside wiring. The NID serves as a point of interconnection and includes electrical protection primarily for personnel safety. The NID may or may not provide remote testing and trouble sectionalization capabilities. The NID UNE allows a CLEC to connect its loop to the inside wiring portion of BellSouth's NID. A facility-based CLEC is expected to provision a CLEC loop and a NID to the customer premises. If the CLEC purchases the NID UNE, the CLEC may perform a physical cross-connect of the inside wire to its loop using a BellSouth NID.
OBF (ORDERING AND BILLING FORUM)	The Ordering and Billing Forum has designed standard forms to be used when ordering telecommunications products (such as LSRs). The OBF provides a forum for customers and providers

Term	Definition
	in the telecommunications industry to identify, discuss, and resolve national issues which affect ordering, billing, provisioning, and exchange of information about access services, other connectivity, and related matters.
ODUF (OPTIONAL DAILY USAGE FILE)	Contains information on billable transactions for resold lines, interim number portability accounts and some unbundled network elements such as unbundled ports.
OPERATIONAL ANALYSIS	Operational analysis focuses on the form, structure, and content of the business process under study. This method is used to evaluate day-to-day operations and operational management practices.
ORDERING	The process and functions by which resale services or unbundled network elements are ordered from the ILEC – the process by which an LSR or ASR is placed with the CLEC.
~~ORDERING AND PROVISIONING DOMAIN~~	~~Tests related to CLEC's acquisition of customer information, placing orders, and ensuring correct and timely provision and notification of order status.~~
OSS (OPERATION SUPPORT SYSTEMS)	~~Operation Support Systems.~~ Systems used to perform pre-ordering, ordering, provisioning, maintenance and repair, and billing.
PBX (PRIVATE BRANCH EXCHANGE)	~~Private Branch Exchange.~~ Routes calls: • between people located within the organization • from users in an organization to people outside • from people outside to users in the organization
PERFORMANCE AND CAPACITY	Methods used to evaluate the performance and capacity of selected elements within the four domains. Relates to tests to determine if BellSouth's OSS can handle quantities of orders matching a reasonable forecasted demand.
PIC (PRIMARY INTEREXCHANGE CARRIER)	~~Primary Interexchange Carrier.~~ The long distance company to which traffic is automatically routed when an end user dials 1+ in equal access areas.
PORT	Point of access into a network, usually in reference to a telephone company's switch.

Term	Definition
POTS (PLAIN OLD TELEPHONE SERVICE)	~~Plain Old Telephone Service~~The basic service supplying standard single line telephones, telephone lines, and access to the public switched network without added features.
PMAP (PERFORMANCE MEASUREMENT & ANALYSIS PLATFORM)	A performance reporting database that monitors and archives performance metrics for BellSouth retail and wholesale operations
PREDICTOR	BellSouth system that is used by TAFI to confirm how the central office is programmed for a specific customer's line; identifies and verifies the line features present on the customer's line.
PRE-ORDERING	The processes and functions by which vital information is obtained, verified, or validated prior to placing a service request. Access to pre-ordering information is necessary to ensure the smooth provisioning and delivery of requested service, avoiding fall-out and the need for manual intervention due to downstream problems.
PRI (PRIMARY RATE INTERFACE)	Access method to integrated services digital network (ISDN). Provides 23 B + 1 D channels operating at 1.544 Mbps in the U.S.; or 30 B + 1 D channels operating at 2.048 Mbps in Europe.
PROVISIONING	The process and functions by which necessary work is performed to activate a service requested via an LSR or ASR, and to initiate the proper billing and accounting functions.
~~QUALITY GATE~~	~~A decision point where the quality of phase work products is assessed based on previously defined criteria. Input to a Quality Gate is a set of baselined work products and a recommendation from the team. Based on these inputs, various actions can take place such as risk assessment, escalation, or a no-go decision.~~
~~RELATIONSHIP MANAGEMENT AND INFRASTRUCTURE DOMAIN~~	~~Tests relating to activities, processes and documents that are focused on the establishment and maintenance of the CLEC/ILEC relationship.~~
REPORT REVIEW	Reviews and analysis of historical data, reports, metrics, and other information in order to assess the effectiveness of a particular system or business function. This includes performance measurement

Term	Definition
	reports and other management reports.
~~RESALE HANDBOOK~~	~~User documentation for CLEC that describes how to establish a reseller, the technical specifications for interacting with BellSouth, and the business rules resellers should follow in order to resell BellSouth products and services on an unbundled basis.~~
~~SCALABILITY~~	~~The degree to which an application can be scaled to accommodate order of magnitude increases in transaction volumes and users.~~
~~SEVERITY 1 TEST EXCEPTION~~	~~An error which causes a program or system interrupt or which causes program execution to abort. AT&T and BELL System personnel refer to this type of error as a "show stopper". This error has the highest severity rating.~~
~~SEVERITY 2 TEST EXCEPTIONS~~	~~A severe error which causes a program not to perform properly or to produce unreliable results. Normally, the user cannot find an appropriate "workaround" for this type of error.~~
~~SEVERITY 3 TEST EXCEPTIONS~~	~~An error for which, while not minor, a "workaround" solution can be found for the user.~~
SOCS (SERVICE ORDER CONTROL SYSTEM)	A BellSouth OS which routes service order images among BellSouth drop points and BellSouth Operations Systems during the service provisioning process. SOCS uses coding placed on the Service Order by the Service Representative or by a front-end logic in systems such as DOE, SONGS, RNS and LESOG.
SUPPLEMENTS	A change to an order taken after the original order was submitted, but before the order has been executed. Order execution should include all supplements.
SWITCH	Electronic ~~device which~~device that opens or closes circuits, changes operating parameters, or selects paths either on a space or time division basis.
TAFI (TROUBLE ANALYSIS FACILITATION INTERFACE)	A rules-based computer system providing automated trouble receipt and screening functionality to BellSouth users in the Residence Repair Center (RRC) and the Business Repair Center (BRC)
TEST CASE	A ~~document comprised~~document comprised of a set of test inputs, execution conditions, and expected results for verifying compliance with specific requirements or evaluating system operations.

Term	Definition
~~TEST CONDITIONS~~	~~Specific to a thread or iteration at a high level and should state what action is to be taken to accomplish a specific expected result with a step-by-step detail.~~
TEST CYCLES	The organizational tools that manage the testing process. Every test cycle includes a description of the test, its objectives, scope, entrance criteria, activities, and exit criteria~~A discrete set of test cases to be executed in a pre-defined order~~.
TEST DOMAIN	A specific testing area with defined targets, measures, scenarios, evaluation methods, and test processes.
TEST SCENARIOS	Scenarios describe realistic situations in which CLECs purchase wholesale services and network elements from BellSouth for resale to the CLEC's end-user customer on a retail basis.
TEST SCRIPT	The clearly and completely defined steps ~~which~~ that a tester must ~~step through~~execute in order to complete a test.
TN (TELEPHONE NUMBER)	~~Telephone number~~Series of ten digits in the NPA-NXX-XXXX format that identifies and routes a call to a specific end user.
TRANSACTION PROVISIONING	The CLEC case method requires extensive participation by the Phase 2 tester to observe the execution, measure and monitor progress and results, and inspect and audit the execution and results.
TRANSACTION DRIVEN SYSTEM ANALYSIS	Transaction driven system analysis relies upon initiation of transactions, tracking of transaction progress, and analysis of transaction completion results to evaluate the automated system under test.
UNBUNDLED ACCESS	Ability of other LECs to access and use BellSouth network components to fill in gaps where these providers' networks do not have their own facilities.
UNBUNDLED INTEROFFICE TRANSPORT – SHARED	Provides a transmission path between switching locations that allows a call to be transported from one location to another. These facilities/trunks groups may be configured in various transmission

Term	Definition
	configurations (e.g. DS1, OC3, etc.) based on total shared network requirements between each BellSouth Telecommunications end office and the BellSouth tandem.
UNBUNDLED DIGITAL LOOP	A transmission channel between an ~~end-user~~end-user location and LEC central office that is not a part of, or connected to, other LEC services. This facility will allow the end user to send and receive traffic using such technologies as ISDN, enhanced electronics capabilities such as HDSL/ADSL, and high-capacity services such as DS1 when the loop is connected to the proper packet/circuit switch. This facility will include ~~a~~an NID at the end user customer's location for the purpose of connecting the loop to the customer's inside wire. UDLs can be configured as 2W ISDN, 2W Enhanced Electronics, 4W DS1 & ISDN, or 4W Enhanced Electronics. On 2W and 4W facilities, BellSouth does not provide the Enhanced Electronics.
UNBUNDLED VOICE LOOP	A dedicated transmission facility from BellSouth's main distributing frame (MDF) to a customer premise. The facility will allow an end user to send and receive normal voice communications traffic when connected to a ~~dial-tone providing~~dial-tone-providing switch or via a designed point-to-point facility to CPE at another customer premise. This facility will include a Network Interface Device (NID) at the customer's location for the purpose of connecting the loop to the customer's inside wire. UVLs can be configured as 2-wire or 4-wire facilities.
UNBUNDLED PORT	An interface on a local switching system that is not bundled with a loop or transport facility, and provides access to and from the switch and the functionality of the local switching system.
UNE (UNBUNDLED NETWORK ELEMENT)	~~Unbundled Network Element~~A facility used to provide telecommunications services. ILECs are required to provide these pieces such that requesting CLECs can buy and combine them to provide telecommunications services.
USOC (UNIVERSAL SERVICE ORDER CODE)	~~Universal Service Order Code.~~ A 3-5 character alphanumeric code that represents a product or service.

Term	Definition
~~V-CLEC~~	~~Virtual Competitive Local Exchange Carrier. A term created by Consulting Firms within the Telecommunications Industry to denote a "non-revenue-generating business entity, used only for the appearance of appearing real to the legacy Operational Support Systems within RBOCs".~~
~~VIRTEL~~	~~A Competitive Local Exchange Carrier (CLEC), begun by employees of Ernst & Young, to act as a Virtual CLEC to gain entry into 271 Compliance issues created out of the 1996 Telecom Act. VirTel's business plan states that it will "never acquire customers."~~

Flow-Through Evaluation~~Audit Plan~~

Version ~~1.1~~2.0

~~May 27~~October 15, 1999

Flow-Through Evaluation

A. Overview

~~*1. Flow-Through Description*~~

A key element in the ability of a Competitive Local Exchange Carrier (CLEC) to compete in the local telecommunications market is the ability of the CLEC's order to "flow through" the incumbent carrier's Operations Support Systems (OSS). Flow-through is defined as electronic transmission through a gateway and acceptance into the incumbent's (in this case BellSouth's) back-office ordering systems without manual intervention by a customer service representative at the incumbent carrier (in BellSouth's case, by the Local Carrier Service Center (LCSC)). ~~In its Second BellSouth Louisiana Order, the Federal Communications Commission emphasizes the importance of flow-through in demonstrating that BellSouth processes competing carriers' orders in a nondiscriminatory manner.~~[1]

~~The flow-through measure is defined as the percentage of valid orders that are processed without manual intervention. Specifically, it is the number of Local Exchange Service Order Generator (LESOG)~~[2] ~~eligible, valid and syntactically correct Local Service Requests (LSRs) submitted from CLECs to the Service Order Control System (SOCS).~~

The purpose of the flow-through evaluation described here is twofold: to review the accuracy of the BellSouth Percent Flow-Through Service Request Service Quality Measurement (SQM)[3] (the "Flow-Through Percent") as reported by BellSouth for the months of July, ~~,~~August, and September 1999 as called for in the Georgia Order[4], and to review the accuracy of the data that are used to calculate that SQM using the results of the transaction test.

B. Scope

The scope of the procedures is defined below in Section D "Procedures to be Performed."

C. Description of BellSouth's Flow-Through Percent Calculation

The Flow-Through Percent is published by
BellSouth ~~publishes a flow through report~~ on a monthly basis to allow participants an opportunity to evaluate BellSouth and CLEC flow-through ratios. The Flow-Through Percent is calculated based on a compilation of data retrieved from a ~~-~~database (data warehouse) which measures the percentage of LSRs submitted electronically that pass through BellSouth's ordering OSS without manual intervention.

The ~~Performance Measurement~~ database is compiled from data extracted from ~~LEO,~~the Service Order Control System (SOCS) and other systems. ~~, LON, CRIS, and CABS.~~ The extracted data ~~extracted from the databases~~is used to calculate the percentage of flow-through LSRs includinges every mechanized service request submitted to the gateway systems (EDI, LENS and ~~now~~ TAG) that are LESOG eligible. BellSouth *excludes* certain mechanized orders from the Flow-Through

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[1] FCC Second Louisiana Order, paragraph 107
[2] Refer to Appendix A: Overview of Applications for details of BellSouth OSS
[3] As defined in Appendix D-2 to the "BellSouth – Georgia OSS Evaluation Master Test Plan" version 3.0, Dated October 15, 1999.
[4] Order on Petition for Third Party Testing, Dated May 20, 1999, p. 3 - 4

Percent including: 1) all orders which require manual handling by the BellSouth LCSC (such as complex services- including ISDN, hunting, PBX trunks, Synchronet®, and services with special pricing) and 2) service requests containing CLEC errors-. The final number of service requests that flow through to SOCS is the numerator in the calculation of the aggregate percentage of service requests that successfully flow-through the ordering OSS, and the total number of service requests that were truly LESOG eligible (as defined by BellSouth -and discussed in detail below in the section entitled "Flow-Through Percent Calculation") is the denominator ~~used toe~~.

BellSouth Order Flow-Through Process

The following represents the CLEC ordering process flow which outlines LSR transmission by the CLEC to SOCS and the order flow-through process through BellSouth's OSS.

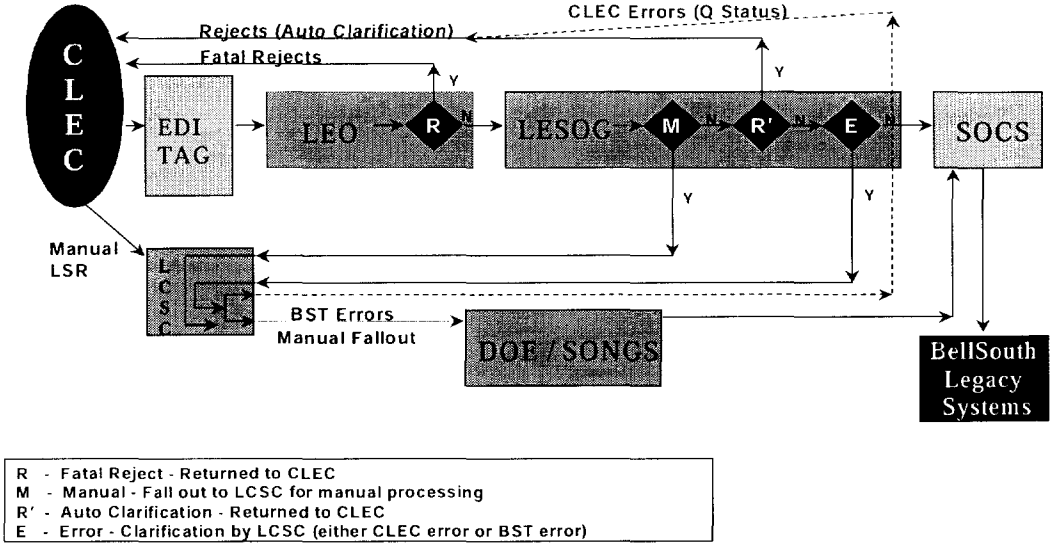


Figure I – Order Flow-Through Process~~Diagram~~

Flow-Through ~~Measure~~ Percent ~~Computation~~Calculation

~~The flow-through measure is computed as the ratio of two key elements: the numerator is the total number of service requests that flow-through to BellSouth's back-office systems (SOCS), while the denominator is the total number of valid service requests delivered to BellSouth's OSS. The amount of flowed through requests measures the number of valid service requests which flow through to the BST OSS during the reporting period. The number of service requests submitted measures the number of valid service requests submitted during the reporting period including resubmissions. The total number of valid service requests delivered to the BST OSS consists of four elements:~~ The flow-through percentage is calculated as follows:

Note: The calculation as well as the definitions described below were obtained from Appendix D-2 to the "BellSouth – Georgia OSS Evaluation Master Test Plan" version 3.0.

Flow-Through %	=	Issued Service Orders (LESOG Flow-Through) / Valid Service Requests

Where:

Issued Service orders	=	The total number of service requests that flow through to BellSouth's back-office systems (SOCS).

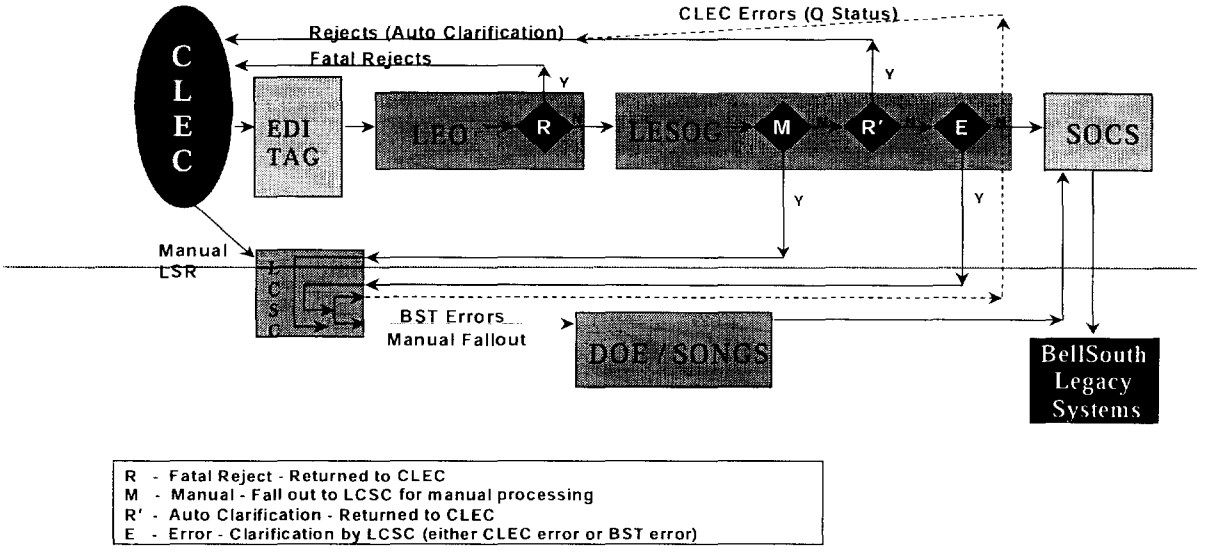
And valid service requests	=	Total mechanized LSRs (including resubmissions) ***LESS***: fatal rejects, manual fallout, auto clarification, and CLEC caused fallout.

And where:

Fatal rejects	=	Errors that prevent an LSR, submitted by the CLEC, from being processed further than LEO. These types of errors will be detected by LEO which performs edit checks to ensure that the data received is formatted correctly and complete.
Manual fallout	=	Certain orders which are sent to BellSouth via an electronic interface are designed to fall out of the mechanized order process due to their complexity. These order types include ISDN, hunting, PBX trunks, Synchronet, etc..
Auto clarification	=	Errors that occur due to invalid data within the LSR. These types of errors will be detected by LESOG which performs data validity checks to ensure that the data within the LSR is correct and valid.
CLEC caused fallout	=	Errors which require manual review by the LCSC and are determined by the LCSC to have been caused by the CLEC. If an error is determined to be caused by a CLEC, the LSR will be sent back to the CLEC for clarification.

~~Total mechanized LSRs~~
~~Less:~~
- ~~Manual Fallout~~
- ~~Auto Clarification~~
- ~~CLEC caused fallout~~

~~Flow Through~~



~~= Issued Service Orders (LESOG Flow Through) x 100%~~
~~Total Mechanized LSRs (Designated Manual Handling + Auto Clarify + CLEC caused Fallout)~~

~~The following represents the CLEC Ordering Process flow which outlines LSR transmission by the CLEC to SOCS and the Order Flow Through process through BellSouth's OSS.~~

~~*Figure I Flow Through Diagram*~~

~~Flow-through reports are a compilation of data retrieved from the Performance Measurement database (data warehouse) which measures the percentage of LSRs submitted electronically that utilize BellSouth's ordering OSS without manual intervention. The Performance Measurement database is compiled from data extracted from LEO, SOCS, LON, CRIS, and CABS. The data extracted from the data base used to calculate the percentage of flow-through LSRs includes every mechanized service request submitted to the gateway systems (EDI, LENS and now TAG) that are LESOG eligible. Several types of service requests are eliminated prior to LESOG service order generation, including the complex orders ISDN, hunting, PBX trunks, Synchronet®, and services with special pricing. These types of orders require manual handling and input by BellSouth retail representatives. The total rejects, i.e., service requests that contained CLEC errors and that require manual handling, are subtracted from the total service requests entering LESOG. This provides the number of service requests that can be forwarded through to SOCS (LESOG eligible). The final number of service requests that flowed through to SOCS is the numerator, and the total number of service requests that were truly LESOG eligible is the denominator used to calculate the aggregate percentage of service requests that successfully flow-through the ordering OSS.~~

D. Procedures to be Performed

~~*2. Flow-Through Audit Overview*~~

~~The goal of the Flow-Through Audit is to ensure that the performance measures reported in BellSouth's monthly flow-through report are accurate and the flow-through measurement data is valid. The audit will also include a review of BellSouth's error analyses to ensure that the attribution between CLEC-caused and BellSouth-caused fallout is accurate. This assessment will be conducted through a combination of transactional and operational testing.~~

~~The following objectives provide an overview of the audit testing requirements for evaluating order flow-through:~~

~~- The functionality and existence of mechanized and manual edits and procedures support the integrity of the flow-through measure data.~~

~~- The flow-through measurement computation is designed with the appropriate measure elements and structure.~~

~~- Data sources are accurate and reliable.~~

~~- Error handling identifies and returns data validity, accuracy, completeness and format errors throughout the flow-through process.~~

The objectives of the test will be met through a combination of transactional and operational procedures described as follows:

Transactional: The first dimension of the test is ~~will be~~ transactional. ~~Transactional~~ and will ~~testing~~ consists of generating, submitting and logging test orders. Testing will be accomplished through the test tools employed in the Third Party OSS Test required by the Georgia Public Service Commission[5] and set out in the corresponding Master Test Plan.[6] These test tools are designed to test all aspects of interfacing with BellSouth's OSS. ~~The results collected from the test management tools will be compared to the corresponding BellSouth measures collected through BellSouth's performance measurement system, which logs and publishes OSS-related measures on a monthly basis. Any variances will be identified and analyzed.~~

Operational: The second dimension of the test is~~will be~~ operational. and will be a ~~Operational analysis is a~~ multi-dimensional test method focused on the form, structure, and content of the test target. This ~~testing method~~test will addresses the organizational and~~,~~ process~~, and technology~~ aspects of flow-through reporting. ~~Data sourcing, mechanized and manual data edits, and calculation methodologies will be reviewed to determine that the system design supports accurate reporting.~~

The operational dimension of the test also specifically includes the calculation of the Flow-Through Measurement and the technology supporting it.

The accuracy
of BellSouth's performance measurement system will be assessed by comparing ~~the~~ the transaction data to BellSouth raw data and replicating the SQM values for each of the three months. Replication entails using BellSouth data to calculate SQM values using independent calculations and verifying whether those values differ from the values reported by BellSouth.

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[5] Order on Petition for Third Party Testing, Dated May 20, 1999, p.3

[6] Georgia OSS Evaluation Master Test Plan, version 3.0, Dated October 15, 1999, Section III-5

3. Transactional Test Description

3.1. Entrance Criteria

The following criteria must be met in order for testing to begin:

- Test data loaded in BellSouth and test systems
- Target performance metrics identified
- Auditor understanding obtained of error checking process including types, causes and criteria
- Auditor understanding obtained of manual error handling criteria
- Third Party test management tools installed and operational
- Appropriate level of performance measure tracking identified
- Sorting keys required for BellSouth and Third Party test tools to separate test transactions identified
- Performance metrics evaluation criteria defined and approved
- Exceptions reporting process defined
- Exceptions reporting template created

3.2. Transactional Test Scope

Transactional testing consists of transaction processing and performance comparison. Transaction processing is mechanical generation, submission and logging of transactions. Performance comparison is the process of comparing data obtained from the BellSouth performance measurement system to data obtained from the Third Party test management tools for the same transaction.

Transactional testing will be conducted for all order types that are capable of mechanized flow-through. Those order types correspond to all simple resale services and features, as well as certain UNE services and features. These services and features are detailed in Figure II. All of these mechanized order types are in scope for flow through testing.

Product Type	*Product or Service*
Simple Resale	Flat Rate Residence Measured Rate Residence Touchtone Optional Calling Plan (OCP) Integrated Package – Area Plus® with Complete Choice®, Complete Choice® Flat Rate/Basic Local Exchange Measured Rate Business Georgia Community Plan Area Plus® Visual Director® Custom Calling – Speed Calling 8 & 30 Custom Calling – 3 Way Calling Custom Calling – Call Forward Variable Custom Calling – Remote Access to CF RingMaster® Message Telephone Service (MTS) TouchStar® – Call Tracing TouchStar® – Call Block TouchStar® – Call Selector TouchStar® – Call Return TouchStar® – Repeat Dialing TouchStar® – Preferred Call Forwarding MemoryCall® MemoryCall® Answering Service Caller ID Call Waiting Call Waiting – Deluxe Customized Code Restriction Enhanced Caller ID Remote Call Forwarding (RCF)
UNE	2-wire Analog Loops (w/ and w/o number portability) 2-wire Analog Switch Ports 2-wire Analog Loop Port combinations INP, LNP

Figure II – Orders with Mechanized Flow-Through

For each product or service, the order can be errored or error-free. All errored orders should be returned to the CLEC automatically or classified by a Local Carrier Service Center (LCSC) service representative and either returned to the CLEC or corrected (in the case of BellSouth errors) and sent forward. Error-free orders should flow through, unless they correspond to complex services that are designed to fall out for manual handling. The range of error types that will be submitted in transactional testing is included in Figure III.

Error Type	*Error Handling*	*Detecting System*
Error-free Order	None	None
	Designated for Manual Handling	LESOG
Data Validity Error	Fatal Reject	LEO
	Auto-clarification	LESOG
Data Accuracy Error	Auto-clarification	LESOG
Data Completeness Error	Fatal Reject	LEO
Data Format Error	Fatal Reject	LEO
Other Error	System Error	LESOG / SOCS

Figure III - Error Types

3.3. Test Activities

The following testing activities comprise transactional testing:

1. Execute Third Party testing as specified in the Third Party OSS Evaluation Master Test Plan
3. In areas not covered in the Master Test Plan's ordering sections, such as resale, execute additional testing based on existing resale scenarios in other sections of the Master Test Plan
3. Acquire and format performance data files delivered by test management tools from Third Party testing
4. Verify that transactions expected to error did so, and that those expected to be successful were
5. Flag any deviations from expectations and investigate
6. Compile final flow-through results based on previous and current test management tool data
7. Compare disaggregated BellSouth performance results with test management tools' flow-through results
8. Flag any exceptions in results comparison
9. Log exceptions in exceptions reporting template
10. Identify and quantify root cause for variances in results
11. Troubleshoot any exceptions and determine resolution procedure
12. Resolve exceptions in accordance with the exceptions resolution process
13. Generate comparative analysis results reports

3.4. Exit Criteria

- Comparative analysis report completed
- Variance findings documented
- Variance findings explained
- Test cycle results summary report created
- Results summary and reports delivered

4. Operational Test

Test Type	Description
Inspection	Physical review of activities, documents and systems
Interviews	Directed conversations with BellSouth personnel
Observation	Monitoring activities and collecting information by observing and logging events as they occur
Document Review	Review and analysis of policies, procedures, publications and logs

Figure IV – Operational Analysis Evaluation Techniques

Detailed and comprehensive evaluation checklists will be developed for all test objectives to be analyzed through operational analysis. These checklists will serve as objective criteria to be applied to inspection, interview, observation and document review activity.

4.1. Scope

The following activities fall into the scope of operational analysis:

- Manual error attribution processes
- System error resolution processes
- Change control over:
  - mechanized error analysis
  - calculation methodologies
- System security
- System scalability

4.2. Activities

Operational analysis activities will include:

Test Type	Test Target
Inspect:	Scalability of systems intervening in flow-through
	Physical security of systems intervening in flow-through
	Logical security of systems intervening in flow-through
Interview:	Administrators of intervening systems
	Mechanized error analysis developers
	Manual error attribution SME
Observe:	LCSC error resolution
	Reperform LCSC error resolution process
Document Review:	Order flow-through flowcharts
	Change control policies
	Change control logs
	System specifications
	System architecture documents
	System security policies
	Error description documents

Figure V - Operational Analysis Activities

Appendix A: Overview of Applications

TAG

The Telecommunications Access Gateway system (TAG) is a transaction-based messaging system with data translation. TAG provides a bi-directional flow of information from a CLEC to the BST OSS and from the BST OSS to the CLEC. In order for BST to provide information to the CLEC, the TAG system transforms the incoming request into a message that can be understood and routed to LEO as an ordering contract or directly to the Business Logic Processor (BLP) for pre-ordering. Therefore, TAG includes the gateway and BLP and creates contracts recognized by the OSS.

The objective of the TAG system is to provide CLECs and BST Retail Systems the ability to access pre-ordering and ordering functionality provided by BST OSS.

The TAG system functionality supports pre-ordering:

- Address Validation
- Telephone Number Assignment
- Appointment Availability
- Service Availability and
- Retrieval and View of the Customer Service Record.

TAG also supports Firm Order functionality including:

- Local Service Request (LSR) Submission,
- Purchase Orders by Company Code requests,
- Order Status, Firm Order Confirmation, Completion Notice, and Error Messages for a selected Purchase Order Number (PON) views,
- LSR retrievals, and
- Automatic Return of FOCs, Rejects, Confirmation Notices, and Jeopardies.

The CLEC must be able to initiate a request either through a Lan-to-Lan or internet connection through a CORBA (Common Object Request Broker Architecture) interface. CORBA is a middle-ware software application, which facilitates client and host server communications. Transmission through the Lan-to-Lan interface will be accomplished through a secure router into the BOSIP network to the TAG gateway. Internet access will be accomplished through secure firewalls into the BOSIP network to the TAG gateway.

Appendix A: Overview of Applications
(Continued)

A transaction is transmitted from a CLEC. The transaction enters TAG via the CORBA server. TAG processes the transaction creating messages to the appropriate inquiry or order BLP. TAG uses the CORBA to Navigator Bridge to pass Firm Order OSS transactions (Local Service Requests) through the LSR Router to LEO. LEO processes the transaction, returning FOCs, Errors, Jeopardies, and Rejects to TAG. TAG uses the CORBA Client to pass pre-Ordering inquiry transactions to the BLP. The BLP passes the transaction to the appropriate pre-ordering OSS. Communication between TAG and the pre-ordering databases is in a CORBA format using TCP/IP protocols.

EDI
The EDI Gateway consists of a Harbinger Trusted Link Gateway and a Harbinger Trusted Link Translator running on an MVS mainframe. It supports:

- Transmission of orders,
- Acknowledgment of receipt of orders,
- Transmission of order error notices,
- Transmission of order jeopardy notices,
- Confirmation of firm orders, and
- Notification of the completion of orders.

The gateway is a collection of secure electronic mail boxes. Electronic mail from a CLEC is initially received by the EDI translator in an industry standard ANSI X.12 format. The translator strips the mail of the "electronic envelope" and transforms it into a flat file usable by the application programs. If the message fails to conform to the standard format, the EDI translator rejects it; otherwise, it deposits the translated message into a file that is retrieved by LEO and stored in the LEO database and control system.

EDI may be accessed through direct network connection, secure dial-in at speeds from 4.8bps to 14.4 bps, or by using a Value Added Network (VAN).

BST's VAN of choice for local exchange ordering is Harbinger. The CLEC may use a different VAN of their choice since the VANs are interconnected. BST is connected to the VAN by a dedicated T1 link supporting 56 KB per second transfer rate. Harbinger delivers mail every 15 minutes into a "hot mailbox" which activates the translator.

Appendix A: Overview of Applications
(Continued)

LEO

The Local Exchange Ordering (LEO) database and control system consists of three main components: an IMS-DC application running on a mainframe using a DB2 database, a service order monitoring application running on an HP-UNIX server, and an IMS on-line work management system running on the same mainframe as the database application.

Orders arriving from the EDI Translator are placed into the database and control system using a remote IMS transaction triggered by the placement of the file by the translator. These transactions load the data into the database, check the data for basic validity, and pass it to the Local Exchange Service Order Generator (LESOG).

The service order monitoring application receives copies of the service order when its status changes in the Service Order Control System (SOCS). The application transmits pertinent information to LESOG using a proprietary file transfer system that has persistent delivery and verifies the data transmitted. The files are batch transmitted every thirty minutes. A confirmation file is transmitted back to the monitoring application upon receipt of the data. Failure to receive the confirmation before the next transmission causes alarms. This application is written in the C programming language and runs on a HP T520. It is monitored using Tivoli.

LESOG

The Local Exchange Service Order Generator converts the service request into a BST internal service order and places it into SOCS. It receives its input from LEO and checks for data validity and data accuracy. This action starts the processing of the order. It communicates with operations support systems to obtain data needed for the order generation. This communication is by TaskMate terminal emulation programs. Any errors are transmitted to the LEO database and control system via BST Navigator. This application runs on two HP T520 systems monitored by Tivoli.

LESOG edits data for validity. Rejects are either returned to the CLEC or are placed in the work management system for manual handling. (See Error and Reject Processing for more information.)

Manual handling is required if:

- The service order is for a complex service designated for manual handling.
- The service order is rejected due to a problem with a BST system.
- The service order could not be routed to the local service order generator.
- The generator system detects an error not designated for automatic clarification.

Appendix A: Overview of Applications

(Continued)

The work management system includes a set of prioritized queues from which service representatives retrieve work and update the database so the control system can track the work. This software is coded in the COBOL II programming language.

DOE

The Direct Order Entry (DOE) systems provides BST with a means to perform pre-ordering and ordering functions in the states of North Carolina, South Carolina, Georgia, and Florida. DOE is a legacy mainframe application, which requires BST representatives to have intimate knowledge of special internal codes in order to perform pre-ordering and ordering functionality for business orders.

SONGS

The Service Order Negotiation System (SONGS) provides BST with a means to perform pre-ordering and ordering functions in the states of Kentucky, Tennessee, Alabama, Mississippi, and Louisiana. SONGS is a legacy mainframe application, which requires BST representatives to have intimate knowledge of special internal codes in order to perform pre-ordering and ordering functionality for business orders.

SOCS

The Service Order Control System (SOCS) receives service orders from LESOG and routes the service orders to their appropriate downstream provisioning and billing systems. SOCS, and systems that further process SOCS orders, treat LESOG service orders the same as service orders from internal BST systems.

CRIS

The Customer Record Information System (CRIS) is a legacy mainframe database which stores customer information and billing information for each customer. Daily usage data for each customer is transferred into CRIS daily.

CABS

The Carrier Access Billing System (CABS) is a legacy mainframe database which stores interexchange carrier (IXC) information and the billing information associated with access services provided to IXCs. Daily access usage for each customer is transferred into CABS daily.

LON

The Local Order Number System (LON) is a database which stores CLEC LSR order information received via non-mechanized means (fax or mail). The information necessary to process the LSR is manually entered via LCSC reps when received, resulting in the generation of a local order number which is uesd to track the physical copy of the LSR. LON is also used to capture information from mechanized order fallout, for re-entry into the legacy BellSouth ordering platforms, DOE or SONGS.